

Genome-Wide Location and Function of DNA Binding Proteins

ABSTRACT OF THE DISCLOSURE

The present invention relates to a method of identifying a region (one or more) of a genome of a cell to which a protein of interest binds. In the methods described herein, DNA binding protein of a cell is linked (*e.g.*, covalently crosslinked) to genomic DNA of a cell. The genomic DNA to which the DNA binding protein is linked is removed and combined or contacted with DNA comprising a sequence complementary to genomic DNA of the cell under conditions in which hybridization between the identified genomic DNA and the sequence complementary to genomic DNA occurs. Region(s) of hybridization are region(s) of the genome of the cell to which the protein of binds. A method of identifying a set of genes where cell cycle regulator binding correlates with gene expression and of identifying genomic targets of cell cycle transcription activators in living cells is also encompassed.